

Date: Wed, 28 Apr 93 19:24:29 PDT  
From: Info-Hams Mailing List and Newsgroup <info-hams@ucsd.edu>  
Errors-To: Info-Hams-Errors@UCSD.Edu  
Reply-To: Info-Hams@UCSD.Edu  
Precedence: Bulk  
Subject: Info-Hams Digest V93 #512  
To: Info-Hams

Info-Hams Digest                      Wed, 28 Apr 93                      Volume 93 : Issue    512

Today's Topics:

        AM Modulation Question (3 msgs)  
            Antenna Positioning  
            Caravan mobile HF  
        Dual-band rubber ducks: advice needed  
            GAP vs R5  
            Mac PD Logging software wanted  
        Manual or information for Alinco ELH230G 2m amp?  
            Need a copy of PRB1... (2 msgs)  
            New Bosnia Prefix  
            no-code defense  
            Other FT-890 Mods wanted  
            SPREAD SPECTRUM (2 msgs)  
        Ten-Tec Service (Was: Re: Want some advice.)  
            Test passed, tickets on the way!  
            Wasn't 20 meters incredible last night!

Send Replies or notes for publication to: <Info-Hams@UCSD.Edu>  
Send subscription requests to: <Info-Hams-REQUEST@UCSD.Edu>  
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Info-Hams Digest are available  
(by FTP only) from UCSD.Edu in directory "mailarchives/info-hams".

We trust that readers are intelligent enough to realize that all text  
herein consists of personal comments and does not represent the official  
policies or positions of any party. Your mileage may vary. So there.

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Date: 28 Apr 93 13:17:24 GMT  
From: news-mail-gateway@ucsd.edu  
Subject: AM Modulation Question  
To: info-hams@ucsd.edu

Jim Bromley W5GJY says...

>On a slightly related track, ie: High-Efficiency AM Transmitters,

>does anyone else remember the Doherty Amplifier? This was a  
>scheme by Western Electric, back when they made broadcasting  
>equipment, to get Class-C efficiency out of a linear final  
>amplifier. They actually amplified the positive modulation  
>peaks separately from the carrier and negative peaks and then  
>combined them in an output network.

I was interested in trying to build a vestigial sideband rig for 75m AM while in college. My roommate Steve WA1QIX (now KA1SI) was an expert on everything about AM and explained that a vestigial sideband signal (carrier plus one sideband with the other sideband not completely eliminated but way down) cannot be generated in the final amp (well, not very easily anyway...). He explained that a low level vestigial sideband signal can be more efficiently amplified by using a Doherty amplifier than a traditional linear amplifier. I searched through the library at WPI and was surprised to find that the only references to Doherty amplification were in old dusty books from decades ago (yes, Western Electric was prominently mentioned). I guess that scheme isn't used anymore. I know that broadcast video signals are vestigial sideband. Does anyone know what form of amplification is used today in that application?

73 de Scott W01G

=====

Scott Sminkey

Software Sustaining Engineering

Xyplex, Inc.

295 Foster St.

Littleton, MA 01460

voice: 508 952-4792

fax: 508 952-4702

email: sasminkey@eng.xyplex.com

(Opinions, comments, etc. are mine, not Xyplex's...)

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Date: Wed, 28 Apr 93 09:56:05 edt

From: pa.dec.com!radio.nl.nuwc.navy.mil!keith@decwrl.dec.com

Subject: AM Modulation Question

To: info-hams@ucsd.edu

In article <103360170@hpfcs0.FC.HP.COM> myers@hpfcs0.FC.HP.COM writes:

>> >The primary disadvantage is the need for a high-powered audio amplifier and  
>> >a hefty modulation transformer. Given the popularity of SSB for amateur  
>> >and utility operation, this form of modulation (usually called "plate  
>> >modulation") is limited to AM broadcasters, both MW and SW.  
>>

[ I said this...]

>> Well, I don't know if I'd go THAT far... ;^) There is still quite a bit of  
>> AM operation on the ham bands, and lots of it is high level plate modulation.  
>> I wouldn't say it's "limited to AM broadcasters."

>

>OK, mea culpa....I was just trying to give an "as-simple-as-possible"  
>answer to what appeared to be a simple question. Re the mod. transformer,  
>I \*thought\* the original question had to do with plate modulation  
>specifically....did I misread?

I don't think you misread. I was just trying to make the point that plate modulation doesn't have to imply that there's a modulation transformer. With PDM you get high level plate (or drain or collector or whatever) modulation without any heavy iron. Use the modulation transformer to anchor your boat or something. :^)

Keith (WA2Q)

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keith@radio.nl.nuwc.navy.mil

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Date: 28 Apr 1993 16:24:27 GMT  
From: ucsd.edu!brian@network.UCSD.EDU  
Subject: AM Modulation Question  
To: info-hams@ucsd.edu

Unless things have changed since I last visited there some years ago, the daytime transmitter at KCBQ (1170 kHz AM) here in San Diego is a 50,000 watt Ampliphase feeding a six-tower antenna system. I believe it's still in service. I think it's a pretty nifty trick to get 50kw of AM out of a pair of PM transmitters - that engineer deserves a raise (or at least fresh flowers on his grave, alas).

KCBQ's nighttime transmitter was a 5,000 watt plate-modulated jobbie - the modulation transformer was about the size of a 4-person hot tub - and they used a reduced antenna array. I dunno if that's still in service.

I'm told their signal is one of the strongest you can hear in the Australian Outback. :-)

- Brian

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Date: 28 Apr 1993 09:11:05 -0400  
From: usc!howland.reston.ans.net!noc.near.net!jericho.mc.com!  
levine@network.UCSD.EDU  
Subject: Antenna Positioning  
To: info-hams@ucsd.edu

I am installing my first tower and have a few questions. I have received many different answers to these questions so I am convinced that there is no real physical answer, just a large group of opinions. I guess I want to see how the majority opinion lines up.

I want to put a Cushcraft A4S on my 50' tower. I want 40m capability also but cannot put up a real 40m beam on this mast because I will be putting an A3 (WARC bean) on the same mast so I am limited by funds at this time. Question: Is it better to:

1) Put a 40m add on kit to the A4S. This is a dipole in the middle of the antenna and some claim it significantly hurts the 10-15-20m performance of the antenna.

or

2) Put a 40m rotatable trapped dipole parallel to the boom above or below the A4S by about 5 feet. By putting it parallel to the boom of the A4, some claim that there will be little impact on the tribanders performance.

2nd question

How far above the A4 10-15-20 tribander should the A3 17-12m antenna be? Cushcraft claims 5-7 feet is fine. Should it also be rotated 90 degrees to the A4 also

It would be nice to be able to model these but the Cushcraft rep at Dayton said that they could not provide pattern charts for any of these arrangements nor could they provide models to use with standard antenna modelling s/w. Furthermore, they said they didn't have pattern data for the A4 with the 40m add-on kit. Hard to believe, eh?

73 de KD1GG

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Date: 28 Apr 93 14:46:00 GMT  
From: news-mail-gateway@ucsd.edu  
Subject: Caravan mobile HF  
To: info-hams@ucsd.edu

Jeff M. Gold, AC4HF writes

> I am planning on buying a mini van. Does anyone know

> about using HF mobile in a Dodge Caravan. I know there  
> are some serious problems with computer systems in  
> some vehicles, and noise interference?

I am on my second Plymouth Voyager (really the same car) and  
I have mounted my Kenwood 440 in both with a Spider antenna  
on the tailgate. No Problems!!! It's a little tricky  
getting the coax through the tailgate channels because of the  
insulation, but with a little patience it can be done.

I'd check the the service manual before I'd buy, (ours is a  
couple of years old). It's a great car...have fun.

\*\*\*\*\*

Linda Stocks, AA6MR pols0@ais.ucla.edu  
aa6mr@wb6wfh#soca.ca.usa

Eschew obfuscation

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Date: Wed, 28 Apr 1993 16:32:35 GMT  
From: dog.ee.lbl.gov!pasteur!agate!howland.reston.ans.net!usc!sdd.hp.com!  
col.hp.com!fc.hp.com!rogerm@network.UCSD.EDU  
Subject: Dual-band rubber ducks: advice needed  
To: info-hams@ucsd.edu

My antenna on my Yaesu died on me also after 3 years of hard service and I  
went out and bought a Diamond RH77B. It is a 1/4 wave for 2 M and a 5/8 for  
70 Cm. I have been quite happy with it and it does especially well on 440 Mhz.

Roger Mitchell  
N0MCR  
President and Master Mechanic  
Fort Collins Municipal Railway

rogerm@fc.hp.com

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Date: 28 Apr 93 14:10:10 GMT  
From: news-mail-gateway@ucsd.edu  
Subject: GAP vs R5  
To: info-hams@ucsd.edu

At the risk of being redundant could anyone tell me if the question concerning  
comparisons of these two similar antennas has been asked. ? If so if anyone has

G4JJ0.wbst207V@xerox.com

[illegible]

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Nets: levin@bbn.com | "How does a mouse let me move the cursor anywhere
pots: (617)873-3463 | I want?" "What are address busses?" "How do
N1MNF/AA | icons work?" --Time-Life Books
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Date: Wed, 28 Apr 1993 14:03:09 GMT  
From: dog.ee.lbl.gov!overload.lbl.gov!agate!howland.reston.ans.net!  
zaphod.mps.ohio-state.edu!saimiri.primite.wisc.edu!caen!uvaarpa!murdoch!  
livia.acs.Virginia.EDU!jeg7e@network.UCSD.EDU  
Subject: Need a copy of PRB1...  
To: info-hams@ucsd.edu

In article <C66BvB.JJ@murdoch.acc.virginia.edu> prt7u@holmes.acc.Virginia.EDU  
(Peter R. Thorsen Jr.) writes:

>  
>Howdy,  
>  
>I talked to a buddy of mine and he said that it didn't matter what kind of  
>restrictions they had I could put up whatever I wanted based on this PRB1  
>thing.

Ah.... I never said that Pete! What I said was that PRB1 (when used correctly)  
can often be used to obtain a COMPROMISE between your local CC&R's and your  
Public Service as an Amateur Radio Operator.

So, while I don't think you're gonna be able to use it to hammer them into  
allowing a 200' tower or anything, I think a small 2m beam on the same mount  
as a dual band vertical and a <10' roof tower should be doable... Esp  
if you stick it in the corner by those trees.

That's what I said... 'Whatever I wanted' Sheesh.... :)

Now, what do you experienced folks think?

>So...I am looking for a place where I can get a copy of this so that I can  
>look it over and assess if I have a chance of putting up my antennas.

Better than just a copy of PRB1 are true anecdotal experiences in this type  
of situation, and of course the ARRL is a good place to get assistance,  
isn't it?

--

These opinions may not be unique, and they may not express the views of U.Va.

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-----  
| Jon Gefaell, Computer Systems Engineer \      /___ | SILENCE = DEATH  
| Security and Technology Planning R&D    \    /   / | Hate is *NOT*  
| I.T.C. Administrative Computing Services \  /   / | a Family Value!  
| The University, UVA. Carruthers Hall    \/ \   / | -----  
~~~~~\~~~~~ 73 de KD4CQY
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Date: 28 Apr 93 11:23:13  
From: idacrd.ccr-p.ida.org!idacrd!n4hy@uunet.uu.net  
Subject: Need a copy of PRB1...  
To: info-hams@ucsd.edu

Call the ARRL. They will provide you with a copy of PRB-1, and copies of judgments that will serve as precedents to make the township officials wary. Then go before your local zoning board and get a variance.

BMc

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Robert W. McGwier | n4hy@ccr-p.ida.org  
Center for Communications Research | Interests: amateur radio, astronomy, golf  
Princeton, N.J. 08520 | Asst Scoutmaster Troop 5700, Hightstown  
-----

Date: Wed, 28 Apr 1993 14:14:15 GMT  
From: agate!howland.reston.ans.net!zaphod.mps.ohio-state.edu!ub!dsinc!gvlsl!  
rossi@ames.arpa  
Subject: New Bosnia Prefix  
To: info-hams@ucsd.edu

In article <C65zvX.Ix3@world.std.com> sharon@world.std.com (Sharon M Gartenberg) writes:

>I am not 100% sure I understood correctly, but I believe a ham friend  
>in Sarajevo said they expect to begin using the new prefix T9 as of  
>May 25. I also believe that a "4N4" station would become "T94."

I worked 4N4XX last night and he said he would be getting his new call T94XX very soon.

=====  
Pete Rossi - WA3NNA | rossi@VFL.Paramax.COM

Paramax Systems Corporation - a Unisys Company  
Valley Forge Engineering Center - Paoli, Pennsylvania  
=====

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Date: Mon, 26 Apr 93 12:40:12 -0400  
From: agate!howland.reston.ans.net!europa.eng.gtefsd.com!emory!dragon!blackwlf!  
nj8j!ben@ames.arpa  
Subject: no-code defense  
To: info-hams@ucsd.edu



system@garlic.sbs.com (Anthony S. Pelliccio) writes:

> I've heard there's going to be a new theory test for licenses higher  
> than Technician.... they'll give you a box of parts and, without  
> instructions, ask you to construct a working transciever.

Hmmmm. Do you get to keep it after you build it? And what will this do to  
test fees? :-)

Ben

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+-----+-----+
| Ben Coleman NJ8J | "All that is not eternal is |
| Packet: NJ8J@W4Q0.#EAL.#ATL.GA.USA.NA | eternally irrelevant." |
| Internet: ben@nj8j.atl.ga.us | |
| or ben@nj8j.blackwlf.mese.com | C. S. Lewis |
+-----+-----+
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Date: Wed, 28 Apr 1993 12:55:32 GMT  
From: news.cerf.net!pagesat!spssig.spss.com!feenix.metronet.com!  
marcbg@network.UCSD.EDU  
Subject: Other FT-890 Mods wanted  
To: info-hams@ucsd.edu

We already have the latest mods for enabling MARS/CAP for the FT-890 - is  
anyone aware of any other mods? Please e-mail -

Thanks!

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| Marc Grant | Internet: marcbg@feenix.metronet.com |
| POB 850472 | Amateur Radio Station N5MEI |
| Richardson, TX 75085 | Voice/Fax: 214-231-3998 |
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- .... - - ... - - .-.. -.. ..- .-.. -.- ...

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Date: 28 Apr 1993 09:43:36 -0700  
From: morrow.stanford.edu!morrow.stanford.edu!not-for-mail@decwrl.dec.com  
Subject: SPREAD SPECTRUM  
To: info-hams@ucsd.edu

Folks,

Just seen, FYI:

SABRE WIRELESS APPLAUDED

ComputerWorld, April 19, 1993, Vol. 27, No. 16

...American Airlines recent announcement...

The wireless network requires one card for a server station and one card for each end node, and it can transmit as far as 400 feet in an open space using spread-spectrum wireless technology.

Steve Eastman, Systems Programmer (KD6TTP 147.510)  
Research Libraries Group, Inc.\Stanford University  
1200 Villa Street, Mountain View, CA USA 94041-1100  
VOX: 415-691-2387, FAX: 415-964-0943  
BR.SJE@RLG.BITNET or BR.SJE@RLG.Stanford.Edu

"9th Amendment

The enumeration in the Constitution of certain rights shall not be construed to deny or disparage others retained by the people."

-----  
Date: 28 Apr 1993 09:38:02 -0700

From: morrow.stanford.edu!morrow.stanford.edu!not-for-mail@decwrl.dec.com

Subject: SPREAD SPECTRUM

To: info-hams@ucsd.edu

Folks,

Just seen, FYI:

SPREAD SPECTRUM FINDING IT WAY INTO HARD-TO-REACH PLACES

ComputerWorld, April 19, 1993, Vol. 27, No. 16

Norad Corp. is shipping a new wireless option...

Using spread-spectrum radio transmissions...

Currently [their customers] must license a narrow piece of Ultra High Frequency band width from the [FCC]... In the new...products...the spread-spectrum bandwidth is licensed to the vendor, and customers do not have to obtain their own FCC license. In addition, spread spectrum is said to speed data transmission rates and increase security because it splits transmissions and sends them over a broad frequency range.

...uses wireless hand held devices to scan bar-coded palettes of merchandise  
...

Steve Eastman, Systems Programmer (KD6TTP 147.510)  
Research Libraries Group, Inc.\Stanford University

The enumeration in the Constitution of certain rights shall not be construed to deny or disparage others retained by the people."

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[ Fred Lloyd, AA7BQ                                Fred.Lloyd@West.Sun.COM ]
[ Sun Microsystems,                               Southwest Area Solaris Transition Manager ]
[ Phoenix, AZ                                     (602) 224-3517 ]
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>Congratulations on passing your exams and welcome to the "family"
>Steve - N2UBP
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Like all families, it is full of disparate views, intemperate comments,  
and a helluva lot of fun. It is worth it!

BMc

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Robert W. McGwier | n4hy@ccr-p.ida.org  
Center for Communications Research | Interests: amateur radio, astronomy, golf  
Princeton, N.J. 08520 | Asst Scoutmaster Troop 5700, Hightstown  
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Date: Wed, 28 Apr 1993 15:50:05 GMT  
From: agate!howland.reston.ans.net!usc!cs.utexas.edu!uwm.edu!linac!att!cbnewsm!  
jeffj@ames.arpa  
Subject: Wasn't 20 meters incredible last night!  
To: info-hams@ucsd.edu

I don't know what was going on with 20 meters last night but it  
was simply incredible! I have never heard so many countries on the  
band at one time outside of a contest! I worked 11 different countries  
including Greece for a new one. I could have worked probably 20 different  
DXCC countries if I was trying to work as many as I could last evening.  
I heard Lebanon coming in really strong with a huge pileup, Luxemburg,  
Suriname (which I got for a new one on SSB), talked to Germany for a  
while (both of us 59+), worked Bosnia (4N4XX) and the list goes on  
and on. What a night! As I live out here in the SF bay area and usually  
don't hear these countries boom in like this I was having a great old  
time! Finally around 11pm I had to go to bed and the band was still wide  
open. If only it was like this more often! Any one else have as much fun  
as I did last night? The night of 4/27/93 was truely amazing!

Jeff

--

Jeff Jones AB6MB | OPPOSE THE NORTH AMERICAN FREE TRADE AGREEMENT!  
jeffj@seeker.mystic.com | Canada/USA Free Trade cost Canada 400,000 jobs.  
Infolinc BBS 415-778-5929 | Want to guess how many we'll lose to Mexico?  
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Date: Wed, 28 Apr 1993 16:22:35 GMT  
From: telesoft!garym@uunet.uu.net  
To: info-hams@ucsd.edu

References <1993Apr26.164518.29084@alsys.com>, <1993Apr27.143522.6326@alsys.com>,  
<1993Apr27.232644.14424@alsys.com>ft  
Subject : STS-55 Element Set (117.92)

This is the latest STS-55 element set as of orbit 22. The elements are based on NORAD tracking data and were provided by Robert Kliman.

--GaryM

STS-55

```
1 22640U 93 27 A 93117.92338628 +.00044808 00000-0 13489-3 0 68
2 22640 28.4614 259.2927 0005168 259.6927 100.3101 15.90674402 225
```

Satellite: STS-55

Catalog number: 22640

Epoch time: 93117.92338628 (27 APR 93 22:09:40.58 UTC)

Element set: GSFC-006

Inclination: 28.4614 deg

RA of node: 259.2927 deg Space Shuttle Flight STS-55

Eccentricity: 0.0005168 Keplerian Elements

Arg of perigee: 259.6927 deg

Mean anomaly: 100.3101 deg

Mean motion: 15.90674402 rev/day Semi-major Axis: 6678.5267 Km

Decay rate: 0.45E-03 rev/day\*2 Apogee Alt: 303.59 Km

Epoch rev: 22 Perigee Alt: 296.69 Km

NOTE - This element set is based on NORAD element set # 006.

The spacecraft has been propagated to the next ascending node, and the orbit number has been adjusted to bring it into agreement with the NASA numbering convention.

R.A. Parise, Goddard Space Flight Center

G.L.CARMAN

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Gary Morris KK6YB Internet: elements-request@alsys.com

San Diego, CA, USA Phone: +1 619-457-2700

(for Shuttle Elements subscription info, email: listserv@alsys.com)

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End of Info-Hams Digest V93 #512

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